

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) Method for calculating changes in movement of a selected position on the surface of a heart ~~heart, e.g. related to ischemia, from a signal describing the~~ from an acceleration signal of the heart wall, which is recorded by a motion sensor fastened to, or immediately below, said ~~a selected position. on the surface of an active~~ the heart, by detecting patterns in said recorded signal that deviate from the pattern of normal activity, wherein said sensor registers and registering the movements of the heart in this position in three directions, so that the acceleration signal describes the acceleration of said selected position in three dimensions, wherein said selected position is in an area of the heart that is supplied by a selected vessel, the method comprising analyzing the recorded acceleration signal to calculate changes in movement of said selected position that correlates to ischemia in said area of the heart.

2. (Original) Method according to claim 1, wherein the method is performed post operatively in connection with a bypass operation.

3. (Currently amended) Method according to claim 1, wherein said area of the heart is a ~~the position is selected as a central point of that part of the heart muscle which after an operation receives blood from the~~ a ~~revascularised coronary artery.~~

4. (Original) Method according to claim 1, wherein the motion sensor is designed by means of its dimensions and fastening devices to be removable from the position without requiring surgical intervention.

5. (Original) Method according to claim 1, wherein the motion sensor comprises an accelerometer that is sensitive to acceleration in three directions.

6. (Original) Method according to claim 1, wherein the motion sensor comprises a gyroscope for measuring rotary movement at the point of attachment of the sensor.

7. (Original) Method according to claim 1, wherein the registered movement is transmitted to a calculation unit located externally of the patient for performing said analysis.

8. (Original) Method according to claim 1, wherein the motion sensor is incorporated into a temporary pacemaker electrode.

Claims 9-22 (Cancelled).

23. (New) Method according to claim 1, wherein the method further comprises integrating the acceleration signal to reconstruct a speed and a position of said selected position on the surface of the heart.

24. (New) Method according to claim 1, wherein the motion sensor is small enough to allow it to be fastened to, or immediately below, said selected position on the surface of the heart in that the motion sensor is based on thin films of piezoelectric material laid on a supporting structure.

25. (New) A system for detecting changes in the movement of the heart, the system comprising at least one motion sensor with a sensitivity in three directions and designed to be fastened to, or immediately below, a selected position on the surface of an area of the heart, and where the sensor is designed to provide an acceleration signal that reflect the heart activity to a calculation unit for analyzing the recorded

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acceleration signal to calculate changes in movement of said selected position that correlates to ischemia in said area of the heart.